The NATIONAL HORTICULTURAL MAGAZINE

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Issued quarterly by The American Horticultural Society, a Union of The National Horticultural Society and The American Horticultural Society, at Washington, D. C. Devoted to the popularizing of all phases of Horticulture: Ornamental Gardening, including Landscape Gardening and Amateur Flower Gardening; Professional Flower Gardening or Floriculture; Vegetable Gardening; Fruit Growing and all activities allied with Horticulture.

"YOSHINO CHERRIES" *Photograph by Lilian A. Guernsey*

Spring night . . . O cherry flowers
A few swift-flying hours,
And then Spring dawn, O cherry flowers.

—*Basho.*

THE PRESIDENT'S MESSAGE

To the Members of The American Horticultural Society.

DEAR FRIENDS:

Greetings to you! May the winter be kind to your plants and fill you with fresh enthusiasm for next summer's gardening!

It is the season for reshaping our ideals in conformity with last year's experiences and for making new plans for the coming year, when old friends are to be reinstalled, new friends to be given a permanent place, many new experiments to be tried, and above all, the time when our enthusiasms are to be whipped into shape for the arrival of spring. And although our favorite flowers are not in bloom, neither do we suffer from pestiferous insects, insidious diseases, nor the ravages of weather, so we can have peace in our gardens if not the full enjoyment of summer.

I hope that, while reveling in this winter garden, you will take time to include our organization in your thoughts and plans. Here we are, a united society, one national organization to promote Horticulture in all its branches. Each one of us may consider the branch in which he is the most interested the most important and all others of lesser interest, but I believe that whatever your hobby, all of you desire that our organization shall help to bring into being a greater interest in horticulture in general and a greater measure of garden joy to more people than ever before. To accomplish this two things are necessary: first, that our magazine shall go out regularly hereafter and second, that there shall be more members to see and read it. All of you have interesting and important garden experiences. So do your neighbors. Send us accounts of these as it is from such everyday experiences that the most valuable help can be secured and passed on. We need to be in touch with many gardeners, to be helped by them and to help in turn. To carry this to greater lengths, we need more members. If each one of our five hundred will get us one new member, we will be in position to push forward with real constructive work. In the first place, it will enable us to make the magazine larger and more helpful to the increased number of members. And correspondingly each subsequent increase in membership will increase the possibilities for service.

May we count on your support in pushing a membership campaign and in sending in suggestions for bettering the society. I shall be glad to hear personally from any of you whenever you have time to write.

Now let each one of us do all that we can so that by the end of the year we may rejoice in the progress made toward the upbuilding of a helpful organization. Sincerely yours,

FURMAN LLOYD MULFORD,
President.

SECRETARY'S MESSAGE

Now that the union of The National Horticultural Society and The American Horticultural Society is complete, and with the publication of this, the first copy of The National Horticultural Magazine since the merger, it is opportune to look ahead and plan our course for the future. The aim of the society is to promote Horticulture in all its branches and our success in this effort can be measured primarily by the number of members we have who are willing to support this work and secondarily by the officers who are chosen to direct the destinies of the organization.

This magazine will serve to make a more intimate contact between the members and the executive branch of the society. This factor is a necessity to keep a genuine interest aroused. It is the plan in the succeeding issues to carry a roster of the membership, a history of the society, and other items of interest concerning the executive activities of the organization.

Early in 1927, now that we have the magazine as our herald, a membership campaign should be launched. In this every member can serve. It is by building up a large organization of persons in all walks of Horticulture that The American Horticultural Society can become the power that it should be in this country. The road is open and wide for rapid progress.

At our annual meeting to be held in February new officers will be elected for the ensuing year. A notice of the offices to be filled has already been sent you and the voting will take place during January. The officers to be elected for 1927 will need the support of our entire organization to build up and strengthen our young but growing society.

D. Victor Lumsden,
Secretary.

PRESENT ROLL OF OFFICERS AND DIRECTORS

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Winter is the best time of year to study the character of growth of trees and shrubs. When all the leaves have fallen you can see the habit of the plant and so discover the only intelligent approach to pruning.

In pruning you have either one of two aims, to bring about a cultural condition which will increase the production of fruit or flowers or to establish a plant in the form of growth that will be most characteristic of its individuality.

In the garden borders there is always a need for fillers to supplement the permanent plants. These may well be annuals. In the South at least, it is possible to choose some annuals that will self-sow and which will need only thinning in the spring to secure the desired results. There cleome, nigella, viola, petunia, cornflowers, poppies and many others will establish themselves. Further north, in borders that are mulched some of these will endure and the forget-me-nots and violas will grow in even greater freedom.

All the beauty of a plant does not reside in its flower or fruit. Observe the leaves, their relation to the stem and to one another; the unfolding buds, the growth of the young shoots; the seed capsules and the details of their structure.

The Wintering of Bearded Iris

The tall bearded irises are generally so iron-clad as to hardiness that it may seem a little superfluous to treat of their wintering-over at all but when, as at present, some of the newer varieties of this lovely flower have become such aristocrats that many of us willingly pay five to fifty dollars for a single rhizome, the question of carrying the new possession through the winter becomes a proper subject for serious consideration.

It is to be admitted of course that a few varieties are inherently less able to withstand severe winter conditions than others, particularly those deriving from such southern ancestry as *Mesopotamica* or *Ricardi*. Derivatives of these may be splendidly suited to the gardens of California though hardly to be commended to Maine or Minnesota. But the vast bulk of all varieties are capable of standing very low temperatures without injury if all other conditions are right. Therefore the problem of wintering-over consists in doing what we humanly can to see that the other conditions are right, recognizing, however, that there are some aspects of the case that lie beyond us and must be trustfully left to Nature herself, and it is this that injects an element of uncertainty into our best efforts and leaves the results still something of a gamble. An abnormal summer of drought followed by abundant rain late in the season may induce such rampant growth at a time when vegetation should be, and usually is, slowing down, that the first severe touch of winter finds the plants but poorly matured and in no proper condition to resist. Under such conditions winter losses will be almost unavoidable and unfortunately there is little the gardener can do by way of protection against this.

But winter protection in general properly begins when the planting is done. First, if the beds do not lie upon slopes where surface drainage is fully adequate, the ground should be drawn up into broad ridges with shallow valleys between or into individual low mounds upon which the plants should be set. There is nothing more disastrous to plantings of tall bearded irises than to stand long in water after rain or still worse to occupy such a position in winter, when snow, waterlogged with rain, freezes into a solid cake of ice over them and so effectually cuts them off from free circulation of air perhaps for weeks, or even months should such conditions come about early in the season. While no active growth may be taking place it is just as essential that living fleshy plants such as these have opportunity to breathe in winter as well as summer.

Then the time of planting should be so arranged if possible that all plants have ample time to become well rooted into the soil before hard freezing comes on. This can always be done with such plants as are merely being shifted or reset unless they are to occupy land that can not be vacated until late, as where irises are to move into beds or borders where peonies have preceded them. When new plants are ordered from dealers it is not always possible to secure shipment early enough to permit such establishment of the root systems before real winter arrives and when such late planting for any reason becomes unavoidable some form of winter protection may be desirable or even necessary. It is then to consider what form this protection may safely take, for there are methods quite suitable for certain other things that for the iris would be worse than none. About the worst thing that could be done would be to smother the beds with rotted stable manure, and matted autumn leaves are almost as bad. Both result in an all but air

tight covering of soggy vegetable material suitable only for the residence of angle worms and slugs, and making breathing almost as impossible as the covering of ice already referred to. Some recommend covering such late planted beds with coarse fodder or pine boughs where these are available. The essential thing, however, is that the protection, to be satisfactory, must not settle solidly upon the plants but while keeping off the winter sum will at the same time allow of free air circulation, which prevents the accumulation of undue moisture. Probably better than either fodder or pine boughs is the upsetting of peach crates or similar receptacles over the plantings. These keep off most of the sun and hardly interfere at all with the air circulation, and in case of snow they prevent its compacting into ice in contack with the rhizomes.

Large planting of old and well established varieties seldom call for any such protection, and their abundance, and therefore cheapness, permits the taking of chances with the assurance that if a few succumb there will still be plenty to survive even under the worst conditions likely to be met. The only protection worth considering in such a case, paradoxical as it may sound, is the raking off of their own dead leafage, exposing them to the air however bleak and wintry. But if you are concerned for the safety of one of the aristocrats for which you would hate to spend another twenty-five dollars on replacement it will be well to have kept an eye upon it during the fall, removing leaf by leaf every vestige of dead or dying foliage as fast as it will yield to a gentle pull and separate easily from the rhizome. Then when hard freezing arrives turn a peach basket or fairly open box over it and forget it till spring. If its feet are properly out of the wet and the season has been such as to mature it properly, there need be little fear that it will not survive the winter in perfect condition.

J. Marion Shull.

If you happen in a great museum, look through the collections of pottery and see how the humble squash has inspired many beautiful forms for vases, in every refinement from the crude copies in some of the Aztec pottery to the exquisite vases from the Ming dynasties in China.

Are there any spots where water stands in your flower borders? Decide now what steps to take to remove this difficulty another year.

Have you ever experimented with the seeds of trees and shrubs? Or tried the experiment of sowing the seed of hardy annuals upon an early snow that will melt and distribute them for you?

Did you ever read "On The Eaves of The World" by Reginald Farrer? There are two volumes of the most thrilling tales of plant exploring that would hold the interest of any adventurous spirit.

When you prune your trees and shrubs, see that you have good cutting tools and that you keep them sharp. The plants deserve it.

What novelties will you choose for study this next season? Always try a few plants that you do not know. Most of them will be very pleasant surprises so that the few disappointments will not matter.

How well do you see your garden flowers? Do you really know them so well that you could draw an accurate picture of them without a model? This is a very interesting and amusing pastime, for drawing is a natural instinct in man and can be regained with a little practice.

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Editorial Committee, B. Y. Morrison, Chairman; V. E. Grotlisch, P. L. Ricker, J. Marion Shull, John P. Schumacher.

All members are cordially urged to send in papers and notes for publication to the chairman, at 116 Chestnut St., Takoma Park, D. C.

The first issue of the magazine, our magazine, comes to you from The Editorial Committee with the hope that you will view it with both "a seeing eye and an understanding heart." None are so aware as they that it falls short of their vision of what it is to become. Each member has contributed something from his own store of garden interests but this is not to establish any precedent. Hereafter, we shall hope to have the issues filled with the material sent in from our members. Please look upon this not as an obligation but a pleasure and give your committee such support that it will be able to send back to you a magazine that will fill their hearts with pride.

THE CORREVON LECTURE

In presenting the text of The Correvon Lecture, transcribed with considerable difficulty on the night of the lecture, the editors realize that they can give only the merest suggestion of the charm of the lecturer and none of the beauty of the colored slides. It has seemed desirable to them, however, to make this record of the visit of this distinguished gardener who has done so much in his own land to safeguard the native flora. We are slowly taking his example to heart and every year sees the spread of the same ideal in this country.

THE MAGAZINE NUMBER

This issue represents the sole number of the year 1926, and should perhaps have been given the number 4, but on the advice of our librarians, it has been numbered as you will find in order that there may be no confusion in filing.

THE COVER

The photograph on the cover was taken in the famous planting of cherries about the Tidal Basin in Washington. The tree is the variety known as the Yoshino, one of the most famous of the Japanese cherries, beloved in its native country for its earliness and the delicacy of its single pale pink flowers that fill the trees with a dawn-like glow.

This idea is typically expressed in the famous hokku by Basho, the Japanese poet most noted for this type of poem. The translation used is taken from "Japanese Poetry" by Curtis Hidden Page, published by Houghton, Mifflin Co., Boston, 1923, a delightful book in which many other poems appear which are of singular interest to the gardener, as they are concerned with plants and the associated ideas that cluster about them in fact and in legend.

Alpine Plants

And Their Use in Rock Gardens

AN ADDRESS BY
DR. HENRI CORREVON
Before The American Horticultural Society.
Meeting of February 26, 1926.

INTRODUCTION BY DR. FREDERICK V. COVILLE.

It is a privilege and a pleasure to introduce M. Henri Correvon. He is in this country at the invitation of the Lowthorpe School of Landscape Architecture, of Groton, Massachusetts. This address is given jointly under the auspices of that organization and the Smithsonian Institution. M. Correvon has devoted a lifetime to study, experimentation and publication in the field of Alpine plants. He is Director of The Alpine Garden of Acclimatization in Geneva and President of the Swiss Association for the Preservation of Wild Flowers. The subject of his address this evening will be "Alpine Plants and Their Use in Rock Gardens."

ADDRESS BY DR. CORREVON

Ladies and Gentlemen: I am very glad to come to this City of Washington, but first of all, I must apologize for the dreadful English you shall hear this evening. I learned English when I was twenty years old, and I read the papers of the Smithsonian Institution of Washington just when we founded, in 1883, the Association for the Protection of Plants in Switzerland. Dr. Torrey, the greatest botanist in New York, said "You must learn English; you must be able to read all of these reports, which are of the very highest interest," so I learned English.

Now I am glad to be able to bring here a little story to the big audience which has met here in the interest of science. As the Smithsonian Institution has sent its publications everywhere, and contributed to the diffusion of knowledge in Europe as well as in all continents, so I was sent here to bring my latest story from my little country. I have been received here in America with the best hospitality that is possible for a man to get in any country.

Now we shall see, ladies and gentlemen, some Alpine plants, the vegetation of the Alps. The vegetation of the lowlands is quite another thing. These plants have a special aspect but it does not appear only in the Alps, for all over the world plants of the same aspect that you will see this evening, ascend to the snows. I saw lately in Boston some slides which were taken in the Rocky Mountains and in Alaska. The flora of the Rocky Mountains is very similar to our Alpine flora. So if you will enjoy the same pleasure as we have now, you may go to the Rocky Mountains and you will find some flowers at least of the same appearance and character. The special characteristic of the Alpine flora is the combination of large flowers with relatively short stems and small leaves.

The edelweiss, a well known plant, is considered one of the Alpine flora but it is not. It can also be found in Siberia, Japan and North America.

The asters are most widely distributed in North America, but none are so large as the herbaceous perennial asters of the Alps which have small leaves, and often only one flower on a tall stem. It is the same for other Alpines.

The Dryad (*Dryas octapetala*), is a plant that populates the mountains very thickly. It belongs to the primrose family and is grown in North

America. There is a yellow one that occurs in the mountains too. These also have large flowers on short stems and are related to the strawberry. Some are brightly colored in order to attract the insects that serve in fecundation. The Alpine flower has a very short time for flowering and maturing its seeds, so that as soon as the snow has melted they begin to flower, some flowering through the snow.

There is *Primula integrifolia* which grows in rocks and holes. It has short stems and big flowers.

The columbine grows in the mountains. One of these is *Aquilegia canadensis*, which is protected from the Alpine sun by its foliage. *Aquilegia alpina*, the other one is blue, rather larger than the *Aquilegia caerulea* of the Rocky Mountains. The stems of the flowers are short.

Rosa alpina is a North American flower too.

I saw some saxifrages in a beautiful walk I was shown yesterday by Mrs. Walcott. I saw one of the Saxifragas that is found in the Rocky Mountains, and another with small leaves and big flowers which grow as high as 2000 meters, on the summit of the Himalayas. And this one is one of the dearest treasures of the Alps praised by botanists in their books and regarded as one of the best Alpines.

The anemone is not only a Swiss and Alpine plant, but American too. A man showed me the other day some dried flowers which he had found in the Rocky Mountains. The plants of the Alps and other high mountains, in order to protect themselves against the cold and against the drought very often cover their leaves with a white coat of cottony hairs.

One plant in particular is shrouded in mysticism in the Alps, because when a young man wishes to make a very nice present to his bride he goes out and gathers a mass of Edelweiss in the rocks. It grows on very dangerous and very steep rock walls, but does occur on rocky slopes and generally is easy to find. I saw some valleys in the Spanish Pyrenees, with fields of this Edelweiss, the plants being much larger than ours, so that they were cut with the hay in the fields. Hence they are not strictly Alpine. They grow either in chalk or in granite gneiss. In the Department of Agriculture this afternoon I saw some very important plant cultures by Prof. Coville, to determine the importance of soil acidity.

Other flowers want lime. One of this kind is called *Androsace*. You always see these flowers with small leaves, small stems and relatively large flowers.

One flower which hates the chalk is *Primula hirsuta*, which grows on granite rocks. There are frequently many of these plants together flowering in one large colony. Near it is its cousin, *Primula auricula*.

One saxifrage grows only on the north side of the Alps and always in granite. There are over 500 species altogether, some of which are important for cultivation and many of these grow abundantly and well upon limestone.

Now that I have presented you the Alpine flora in these aspects, I want to show it as you will see it in Nature as soon as the snow has melted. You see that is the pasturage and meadow which is quite dull and brown with the snow still on the mountains. As soon as the snow is melted the flowering time for the meadows begins. The crocuses cover the whole chain of the Alps and grow in masses. Some are white, some are purple, according to the latitude. It is one of the plants that are impatient for the spring and can not await the melting of the snow to drink the sun.

Now our fields of flowers begin in March and continue till July. In June the fields of *Anemone alpina* with light bluish flowers are in their prime. They begin in the meadows and go over high up to the tops of the mountains.

And there you will see a little patch of *Gentiana acualis*. Another Alpine plant that is very happy in the south

of England, is the lupine that you may have seen in the fields. Wherever you see sulphur you see anemone and lupines in the granite. You always see these two together, and you may be perfectly certain that they are growing in granite. I remember I took such a walk in 1878 in the month of June. This little violet is half granitic and half limestone in its tastes. The anemone illustrates the difference in size between the leaves and the flowers. They always have big flowers.

The gentian, *Gentiana verna*, is the bluest of all flowers. It is rather difficult to grow if you transport it from the mountain to the garden, but it is easy to raise from seed; as you know, however, it is slow to germinate from seed but is easy to bring very quickly into flower if you plant it in sandy soil. Our Alpine daisy grows mostly in very damp places.

Some fields are very beautiful with flowers of *Narcissus poeticus*. There are masses of them, millions of them, in all the fields, all the pastures till they are white with flowers. They begin flowering in May and last till July, beginning early as the snows are just melting. Another flower that comes in masses is the Alpine Rose or Rhododendron, which belongs to the Alps and the Pyrenees but not elsewhere. You have some very beautiful rhododendrons much taller and larger than ours but we like our little ones. The flowers have a delicious fragrance and we like them for their color and what they say to us.

When strangers come to Switzerland they come for climbing and for other things but they seldom come early enough for our Alpine meadows. If they climb high enough they find flowers, brilliant blossoms, but the meadows of bloom are to be seen only in June and in the beginning of July.

Now in Switzerland we have some nice forests, some nice woodlands. The government in 1875 made a law in order to protect our forest roads. One of the trees that we are protecting in Switzerland is our Swiss pine, *Pinus cembra*, which gives big seeds like hazel nuts, only better. This tree ascends to the highest elevations of all, making good timber even at 2,000 meters. They used to grow even higher but now the limit is nearer 1,800 meters. The trees make one of the best and finest sights in nature. In the Blue Hills, near Boston, I saw lately in the snow a collection of trees which rejoiced my heart. This morning I made a tour of the parks you have here and coming to the monument I saw the Japanese cherries and your delightful trees. I think in the summer, in the harvest time they must be very beautiful, and very valuable for there are so many species of trees there. And I have heard to-day that there is an arboretum near Boston and near Cambridge, such a beautiful arboretum, and I should think you would have here in the neighborhood of your botanical treasures, a collection of trees, a collection of shrubs which would be one of the best, one of the greatest attractions of the world and have the support of the population. It is one of the best ways of learning about nature, of coming into touch with her.

One of the mountains near Deauxville, France, is composed of chalk and limestone rocks. It is a limestone monument 1,000 meters high. Here some of the stones have fallen and among them grow some of the best of the rock plants.

One of the saxifrages covers the rocks and fills the spaces between with patches of flowers. Here is a flower, white inside; here is one, red. No insect is seeking its honey for there is none there. He must go to the white flowers.

A very petite flower of the Alps is the lady slipper. You have five or six of them, some white, some yellow, but ours is red.

Stones in nature have a great task to perform. They are the regulators of moisture. The rocks are porous, some more so than the limestone rocks, but

they are all porous. They hold the moisture in them. They give it up gradually to the roots in the ground so that it is very desirable to have stones in the ground.

The pine has been placed in nature in order to retain the soil, to hinder the path of the avalanche, to rid it of waters and inundations. The government has planted millions of pines all over the Alps in order to protect the fields and agriculture. At a certain altitude the plants become so dwarfed that you can find nothing more than a few inches high. One such is our azalea, while you have them from 2 to 6 feet high. I saw willows here to-day in the parks that are big trees but in the Alps some willows as many years old are still very small. The seed often falls in a little crevice and in a year's time the young plant is an inch long. That can not produce more than three or four leaves a year. We also have a birch in Switzerland which is not very much larger and is very rare. It is a plant remaining over from the glacial region.

We have a *Doronicum*, a composite related to arnica, and if you climb up a mountain you are certain to be near the summit if you see their flowers. It is an Alpine and grows only on chalk. It had a white flower with a yellow center and grows in masses.

Our *Campanula cenisia* grows in chalk and has stemless flowers.

Papavers are very rare. The azaleas and papavers you know well, especially *Papaver nudicaule* which grows in the northern part of America.

We have many fields of Primulas. *Primula farinosa* is one of our dearest flowers of the spring and can be found in the north of America and in the south in the boggy streams.

Now, ladies and gentlemen, I am here also as a protector of plants. We have to have sheep and they are the biggest enemies of plants. They eat everything. Nothing escapes. If they could get to the highest meadows, they would destroy everything there. They would eat up all the best and most brilliant flowers. Since 1875 they have been pasturing these sheep. Everything not enclosed will be destroyed in the mountains. They must be enclosed. The south of France and the north of Italy are a desert because of the sheep, enemies of the country as well as of the flowers.

A friend of mine asked me to make an experiment with some plants from the Balkans and from the Pyrenees, to see how they would grow in the Alps, and I needed money for it which they sent. We bought some ground in 1889 and made a garden that was in its glory at the end of the last century, one that took half of my life, containing 133 kinds of soil, corresponding to the different mountains of the world. During the war I could not keep the land because I had no money and the man who supported it couldn't support it. I gave it to the University of Geneva. They made there an elaborate garden so that last year, when I was there, I saw some North American students who were studying the flowers. On another site we planted many different plants all over the rocks.

Another garden not so far away is the landscape garden at Les Plans, established by the University of Lausanne, which serves for the study of the Alpine plants by the students there. Some of the lady students there will become landscape gardeners, and I gave my first lecture there. I was surprised to see how they loved the flowers of my country. They grow them from seed and have kept most of them very well.

In my own garden, near Geneva, we made a first attempt to have a garden raising Alpine seeds for the public in order to struggle against the destruction of Alpine plants, but this could not go on. We have been working for eighteen years and we have now transferred that ground to others.

Another garden near Geneva, about two miles away, is visited by many strangers who come in the summertime to see them. Some people here have seen it certainly and will recog-

nize the views that I have taken in the garden.

The first flowers in the garden are the *Primula acaulis* and the blue and yellow pansies that soon follow.

I must say that I like blue colors very much and in the spring I like to have some blue colors near my house. So here you see masses of flowers, even baskets of flowers which transform every place in sheets of color, just as they do the rocks in the Alps themselves.

The rock rose is one of the best plants for the garden. They endure the hottest weather and drought, and the most meagre soil. They do not want rich soil. The worse the soil, the better the plants love it, and the better the flowers that result.

We have a reddish violet. It comes generally from the south of Europe. Of course they do not flower so long, from the end of June to the end of July. But after you have cut the flowers another crop will come out.

We occasionally have *Gentiana acaulis* which the English grow in their gardens, but generally it does not flourish.

Genista pilosa is a very hardy shrub which grows in chalk, as compared with the other genistas that prefer granite.

This is the peony of the Caucasus, which is quite new with us.

And here we have *Campanula granitica* which flowers in August.

Here is something of interest to Americans, the California poppy. We let it sow itself all over the ground where the soil is light and it is especially valuable for the time when we have little else. Among other introduced species is one of the cypresses. We got the seeds from your former President Roosevelt in 1901. He sent me a sack of seeds of rare shrubs and plants of America and I have grown them in the open ground where they make the glory of my garden.

There are many Alpine plants that can be kept in a border like the peony and other flowers of that nature. One of these is the mullein. It is a very showy and ornamental plant, as you see.

When I was a boy I saw a retaining wall covered with *Saxifraga longifolia* and all kinds of things, and I was so enthusiastic that I think I declared to my mother that I would plant things in our wall. It was a dry wall and I planted some things that did not succeed, but now we have a retaining wall that is better and is very attractive in the month of March. The wall in itself is rather ugly, but not when it is covered with flowers. Among the plants on the wall are the American phlox and the white-flowering *Iberis saxatilis* which grows at the tops of certain mountains in the south of France. There are some herbaceous bulbs that will thrive in a wall.

If one can take some thought for the appearance of the wall the whole scheme will be improved. I once built a wall of tufa that was satisfactory, but whatever the stone, it should make a good background, preferably dark, for the flowers, and these in their turn must be planted in artistic groupings so that they form attractive groupings and successions of bloom.

Now I have finished. I hope, ladies and gentlemen, that you have understood everything and have enjoyed your visit in my country.

Brightly colored fruits are of value in the winter scene. In choosing plants for such purposes, remember that berries with a hard coat and firm, not sappy contents, will stand the freezing better than the others. The lovely tinted pearl-like berries of *Berberis wilsonae* are soon spoiled by a severe freeze, and the exquisite coral berries of *Berberis vernae* are so soft and full of sap that they are spoiled before frost has touched them.

Watch the patterns of bare twigs against the snow and the interesting addition of their shadows on sunny days.

Seed for the Wild Flower Garden

A wild flower garden is becoming increasingly popular among flower lovers and is looked upon by many as an excellent means of cooperating with this phase of the conservation movement. Unfortunately, however, some wild flower gardens are being established only through the more or less complete destruction of certain rare species in other localities. Most nurserymen engaged in furnishing roots of wild plants for gardens dig them up from wild land or have professional collectors in various parts of the country do it for them when orders are received. On such orders as many as one thousand specimens each of orchids that are rare in most places, have been transplanted to private grounds, and even though taken from a locality where they are abundant, such orders slowly but surely mean the eventual extermination, where now abundant, of such plants as the orchids.

Seeds are one of the best means, although somewhat slower, of getting a wild flower garden started, and if one is fond of a fall or winter walk through the woods, seed may be obtained from many kinds of shrubs and herbaceous plants, although the earlier in the fall they are collected the better the supply available, as many kinds fall to the ground soon after ripening and others are taken up by birds or squirrels. Many of them require to have the outer hard seed coat broken by freezing and thawing before they will germinate, and such seeds as holly and dogwood must remain in the ground two winters before they will germinate. The seed of many of the smaller herbaceous plants either require only one winter's freezing or are only benefited by freezing by germinating a month or two sooner than they would if they had not been frozen.

As yet, there is no eastern dealer in wild flower seed and only one or two on the Pacific Coast. Few of the Pacific Coast seed would be adapted to Eastern conditions. Until Eastern dealers begin to market carefully named wild flower seed, the Wild Flower Preservation Society of Washington, D. C., has been able to obtain a small supply of seed of the Red Columbine, Jack-in-the-pulpit, and Wild Rose from members of the society interested in the subject, which can be obtained for ten cents per packet.

With the coming of the later spring months a great variety of wild seed may be collected. Most of them can be dried and planted in the fall, but if they are fully ripened there is no harm in planting them immediately as is done in nature. Some may germinate the same year if conditions are favorable, but most of them will wait until another spring. Some will prove to be annuals and reseed themselves every year, some will be perennials, a few of which may not bloom the first year, and a much smaller number will be biennials. Most of the biennials will form only an inconspicuous rosette of small leaves the first year and bloom the second year. It is therefore desirable to try to establish two colonies of the biennials on two successive years so that flowers will be produced from one of the two colonies every year.

Those who can collect their own seed will find it much more satisfactory to do so and make notes at the same time as to the character of the soil, amount of shade and whether the soil is normally moist or dry. The seed should be planted under as nearly the same conditions as possible as that in which the parent plants grew, to obtain the best results. Shade conditions can be produced by transplanting trees and shrubs, and moisture furnished from a small pool that is frequently overflowed and which

provides at the same time a small aquatic garden. Another means of supplying a small but steady supply of moisture for a small area, is to run the drippings from a refrigerator through half inch galvanized iron pipe to the desired spot, but such a small amount should not be carried far from its source. In two gardens known to the writer, this also supplies a bird bath before reaching the garden. A water supply from a refrigertor, however, must be so piped that the pipes can be cleaned without too much difficulty as jelly-like colonies of fungi, algae and bacteria will clog the pipe occasionally.

Care must be taken in collecting the seed of plants that grow only in wet or damp places. The seed of some such plants will not germinate if it is allowed to become thoroughly dry. If you have difficulty in getting the seeds of bog or marsh plants to grow and can not plant them immediately after collecting, try keeping them in water until ready for planting.

P. L. RICKER.

The Basis of Selection for the Amateur Rose Grower

The amateur rose grower has a desire for roses. That is fundamental. The desire may have been stimulated by some of the old-fashioned roses in his grandmother's garden, such as the friendly Hermosa, the spicy Safrano or the sturdy Persian Yellow. It may have been started by the glory of a Crimson Rambler or a General Jacqueminot in early June, the specimen roses of a flower show, or a bowl of roses from a friend's garden. The aims and ideals of the amateur may also be varied. He may want bushes for lawn or garden decoration, a planting to serve as a source of cut flowers for the house or climbers to adorn a fence or pergola. Or he may want to grow roses that will vie with those of the florist or win prizes at an exhibition.

Whatever may have started him, or whatever may be his aim, the amateur will do well to begin with a basic selection of varieties that can be depended upon to produce the desired roses. This planting should be composed of the varieties that are known to be good performers in his locality. It should be selected from those that have been thoroughly tested in the climate of his region and have proved themselves to be good growers and dependable bloomers. Probably several bushes each of a few kinds would be better than one bush each of a larger number of varieties. Such a planting, with ordinary care, will be a reliable source of roses, even though the soil may not be ideal or the gardener may not know all the fine points of rose culture. Thus the amateur will avoid the discouragement caused by losses and unsatisfactory results which often follow the planting of varieties that are not well adapted to the locality. After he has made a success of this first selection and has learned a few things by actual contact with his soil, his vines and bushes, he may, should and very likely will indulge his proclivities for taking chances by planting varieties that are untried or difficult to grow, or perhaps temperamental.

What is a good basic selection for an amateur? That is a natural question. Now if we could consult a book or some "authority" and get the correct answer it would be very convenient. In fact, such an arrangement would be "perfectly lovely" as some of our lady friends might say. The problem, however, is not so simple. A number of factors must first be known and considered, such as the major purpose of the planting, character of the soil, range of temperature, volume and distribution of rainfall, degree of humidity and prevalence of

winds. In some cases such features as topographic exposure, presence or absence of windbreaks, and availability of water must be taken into account, for there is no one rose, or any "dozen best roses" that will serve every purpose or do well in every locality and under all conditions. This is a truth that we of America are beginning to learn.

The main purpose for which he wants roses is something that the amateur must determine for himself; no one can do it for him. And it will pay him to make his decision before he buys and plants, because the qualities that will serve one purpose may be entirely unsuited for another, equally worthy. The rose that will provide a succession of blooms is not likely to be one that will cover a lattice, pergola or pillar. The rose that is to adorn the front yard (some people want them there, you know) should have some characteristics of growth and foliage that may be overlooked in the rose in the garden whose primary purpose is to yield quality blooms.

The amateur should also become familiar with the dominant characteristics of roses of the various classes or groups, particularly their manner of growth, and the type and season of their bloom. He should have some idea of what he may expect from the Hybrid Perpetuals as a class, and from the Hybrid Teas, Multiflora and Wichuraiana Hybrids, Rugosas, Pillars and Polyanthas. Such information can be obtained from books or even from a rose catalogue, if it is a good one. This sounds like elementary stuff, to be sure, but you would be surprised to learn how many people there are who love roses and have grown them and yet do not know the essential difference between Hybrid Perpetuals and Hybrid Teas.

Many books are available that contain general information about roses. Naturally, books upon roses have been published in greatest numbers in England, France and Germany where rose culture and rose breeding have been followed for centuries. Many of these books are interesting and valuable. When it comes to the consideration of definite varieties, however, the reader must bear in mind that the books were written in western Europe and that the descriptions of the qualities and behavior of these roses are based mainly on their performance under local conditions which differ greatly from ours. England has its own set of climatic conditions, Germany likewise has a climate of its own and France has two climates, one of the north and one of the south.

And gradually, at the cost of considerable cash and disappointment, we are beginning to realize that our climatic conditions are much more varied and much more trying than those of western Europe, and that some of the roses that are so lovely over there are entirely unable to withstand the conditions here.

Fortunately a good beginning has been made in the accumulation of facts about roses in definite localities. Mr. J. Horace McFarland, in his book "The Rose in America," has made a notable contribution to our knowledge of this subject. Captain George Thomas, in his book "Roses for All Climates," has analyzed a mass of information to determine what classes and varieties are best suited to the general conditions that prevail in the various climatic regions into which he has divided the country. And the American Rose Annual each year presents many pages of definite information about the behavior of old and new roses in particular places.

In examining the evidence on roses, however, a distinction should be made between the most popular or most desired rose, and the most dependable one. They are not necessarily the same. Let me illustrate. Hadley and Red Radiance are growing in the same bed in my garden in the District of Columbia. Of the two, my first choice is Hadley, but when a friend or neighbor wants to start growing roses and asks me to name a good red rose, I

recommend Red Radiance without reservations as being both beautiful and dependable in this region; and then I advise him to plant Hadley also if he is content to accept the exquisite beauty of the individual flower as full recompense for the sparseness of bloom.

In many cases the most fruitful source of information for the amateur is his own neighborhood. If he lives in or near a place where roses are grown in public parks, he may learn what varieties were chosen and may observe how they thrive. Or he may find roses growing in the open on the grounds of institutions and commercial establishments. And above all, he should form contacts with his rose-growing neighbors. A rose "fan," particularly one who does his own digging and pruning, is usually an approachable fellow, who takes pleasure in showing what he has and in starting the "rookie" aright by passing along such information as he himself may have acquired. This near-at-hand source of rose wisdom should not be overlooked or neglected. It is valuable because it is based upon experience under local conditions. In addition, this exchange of rose lore is not confined to any one season, for among rose lovers the rose is in season throughout the year.

JOHN P. SCHUMACHER.

The Common Daylilies

Among the perennial plants that have long been in gardens, that have been cherished in many lands and climates, are the daylilies, particularly the sweet-scented lemon lily and the scentless tawny daylily. If one were able to trace their progress around the globe with any degree of certainty, the one from its home in Europe and Asia and the other from the Orient, he would probably be able to write a tale of adventure as intriguing as any known. And could he discover a chronicle of the journeyings in which garden lovers have carried them from old homes to new, he might chart the making of many a pioneer garden, reaching farther and farther into the West. But whatever the route, whatever the vicissitudes of their progress, these plants are now found throughout the garden world of the North Temperate regions.

The lemon lily itself needs no champion for its charms. No one could fail to see the beauty of its clumps of grass-like foliage overtopped by the slender stalks bearing many lily-like flowers of clearest lemon yellow, that open successively, filling the garden with a delicate and sweet perfume. If anything need be said for this plant, it should be a reminder of its value lest it be uncherished through its very familiarity.

The tawny daylily, on the other hand, does not hold so sure a place in garden affections. This very fact is made clear by the frequency with which it is found by the roadsides and in waste meadow lands, for, as it is always spread by division and never by seed, the hand of man casting it out of gardens has accomplished this distribution. In such places, open to the midsummer sun, its gorgeous tawny flowers make a brave sight in the midsummer pageant. In the garden, however, its tendency to spread about and usurp more than its allotted space, makes it of less value than other plants that keep in bounds.

It is not a plant without romance. The story of the patient work of Dr. A. B. Stout, as chronicled in the Journal of The New York Botanical Garden and in the Journal of Heredity, which tell of the years of untiring en-

deavor devoted to the study of its sterility and the final success that resulted in seeds upon this long fruitless plant, is a story well worth reading. The promise that it holds for the securing of new hybrid forms of hemerocallis is also of great interest to the gardener, for it means that the range of colors and patterns to be had in these plants will be greatly augmented.

It is interesting to know that there is a revival of interest in these plants and that America is making a large part in the current contribution. The various hybrids that have come into the trade in the past have largely been of European origin, some from Lemoine, some from Sprenger, and more recently from Perry. Here, Bertrand Farr was the pioneer, but Dr. Stout and Mr. Carl Betscher will have many additions to make within the next few years.

There are a few plants which are no longer novelties that should be more commonly grown and so deserve a word or two. Of these Gold Dust and Orangeman are a rather similar pair which come into flower with the lemon lily. They grow more compactly and have a more dwarf habit with flowers of deeper yellow, stained with reddish brown on the backs of the petals, a color they have probably inherited from Dumortier's daylily, itself a charming spring variety. They do not have very much fragrance but the masses of the warm yellow flowers in the early spring make a welcome addition to the early perennial border. They are very charming combined with lavender pallida iris, with the white forms of the common columbine, with white and creamy peonies, in fact with any of the spring flowers save those of a pink or rose color. The old variety Apricot, which is still given in some lists as a novelty, has very smooth and clear-colored flowers which appear as intermediate between the lemon lily and Middendorf's daylily, a bright orange colored early species. Of the other spring bloomers I should particularly recommend Sovereign with lemon-colored flowers of fine form and substance, Ajax with larger and slightly later flowers of deep yellow, and Queen of May a little later still and equally large and fine flowered.

These spring flowering sorts are not so valuable to the gardener, however, as the summer flowering sorts that add to the perennials that bloom in July and August. Thunberg's daylily resembles the lemon lily in a general way but is more slender, taller and a paler, rather more greenish yellow. The varieties luteola, luteola major and Florham are strong growing sorts with a habit somewhat like that of the tawny daylily and flowers of various tints of yellow and orange. The orange daylily (*Hemerocallis aurantiaca* and its variety *major*), are plants of lesser growth with flowers of apricot which resemble in pattern those of the tawny daylily. There are various hybrids of *Hemerocallis citrina* in the trade which are valuable for the lateness of their flowering, their very pale yellow flowers often continuing in bloom well into September. They have a very distinct and charming scent, derived from their parent, itself a very lovely daylily said to be rather tender in the North.

All these plants like a rich, moist but well drained garden soil. They should be allowed to form strong clumps in the garden borders so that they may send up their sheaves of bloom before any judgment is passed on their decorative effect. They need division only when the clumps begin to show signs of stopping flowering or when more plants are desired. Divide in the spring or in early autumn so that the plants may be thoroughly established before winter sets in. This is particularly necessary, for those that make an autumn growth of leaves should be hardened before severe freezing. For all such, a loose mulch of some sort that will not hold water is a great benefit and a practice absolutely necessary in Northern gardens.

B. Y. Morrison.